SAMSUNG
CONFIDENTIAL

HOT

COLD

B+
D111 UF5408
D110 UF5408
PC3S TLP421
R95 390-F
BD2 G3SBA60/GBU4J
250V T2.0AL F5
SCK-053 RT2S
410150 LF9S
CX5S 275V 0.22uF
C100 450V 22uF
R67 180k 1W
R69 100k 1W
C99 1KV 1nF(102)
R68 180Kohm 1W
D26 BYV38
C710 630V 333
T3S
GND
D28 D2S4M
R222 20 0.5W
C222 1KV 1nF(102)
L6 K
R94 4.7kF
R96 5.1kF
STD_5V
C102 0.47uF(474)
R102 10kF
C103 101
R97 4.7kF
IC6 KA431
VR2 1k
RTN
IC2 IEC2A280
R2 0.5 1W
C268 104
C51 50V 1uF
R701 100k 1/4W
C50 50V 47uF
D27 BYV38
C39 10V 2200uF
C41 50V 47uF
D112 UF5408
VC_S_R
VCC_S
PS_ON
STD_5V
Q11 IRF9120
Q14 IRF9120
IC8 KA7818
D25 BYV38
F9 250V T1.0AL
Q12 C2383
R104 2kF
VC_S_F
F6S 250V T2.0AL
B+_PFC
R337 220kF 1/2W
R336 220kF 1/2W
R351 10kF
C36 50V 47uF
VC_A_OF
D88 1N4148
IC27 KA431
C104 35V 100uF
R335 4.7K-F
C46 50V 47uF
C37 50V 47uF
R243 10kF
R702 10k 1/2W-F
C38 50V 47uF
R93 10kF
R255 1kF
R350 1kF
Q88 KSP2222A
PC13S TLP421
A
R164 200
R353 510
R360 100
C110 35V 220uF
R163 3.9k
R352 1kF
PC9S TLP421
GND_H
RTN
JUMP2
JUMP1
R1214 560HM 3W
D3 BYV38
STD_5V
CX4S 275V 1uF
CH5750755
LF4S
472(4.7nF)*3
CY1S
CY2S
CY3S
LF1S
RTN
R1S 1.8M 1/2W
CX1S 275V 1uF
RY1S 4.7M 1/2W
ZNR1S 201751
ZNR2S 10D471
F1S 250V T8.0AH
LIVE
NEUTRAL
CN800S
INPUT POWER RATING
AC90~264V
47~63HZ
VC_S_F
ZD50 15V
R402 4.7kF
Q13 C2383
C166 35V 220uF
R169 4.7kF
24V
RL3S
BYV38 D5
RT1S SCK-206
NEUTRAL
LIVE
VC_S_R
GND_H

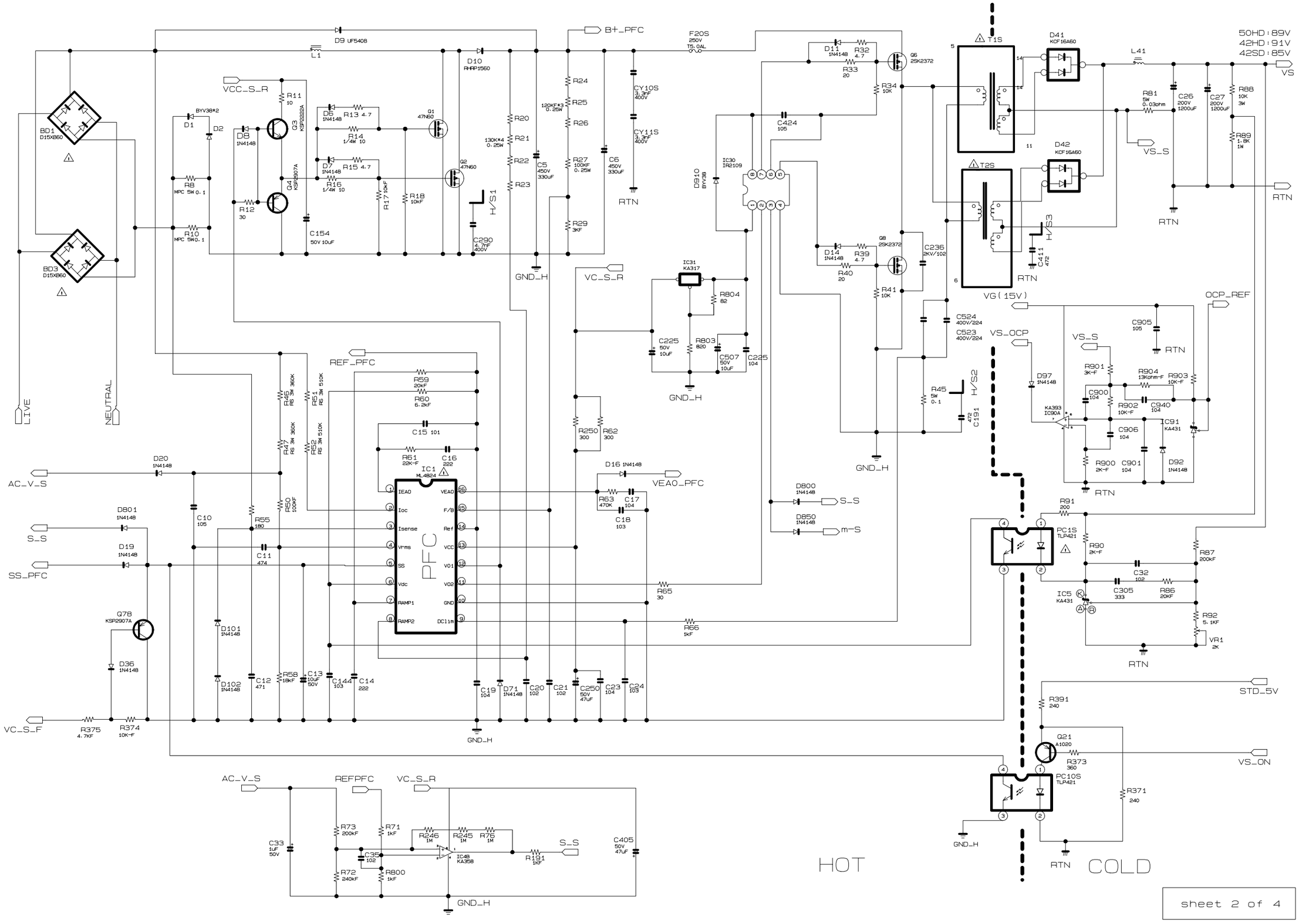
SIGNATURES		DATE
DRAWN	M.J.G	021215
CHECKED	L.J.H	021215
ENGRG		
ISSUED		

SAMSUNG ELECTRO-MECHANICS

REV1.2

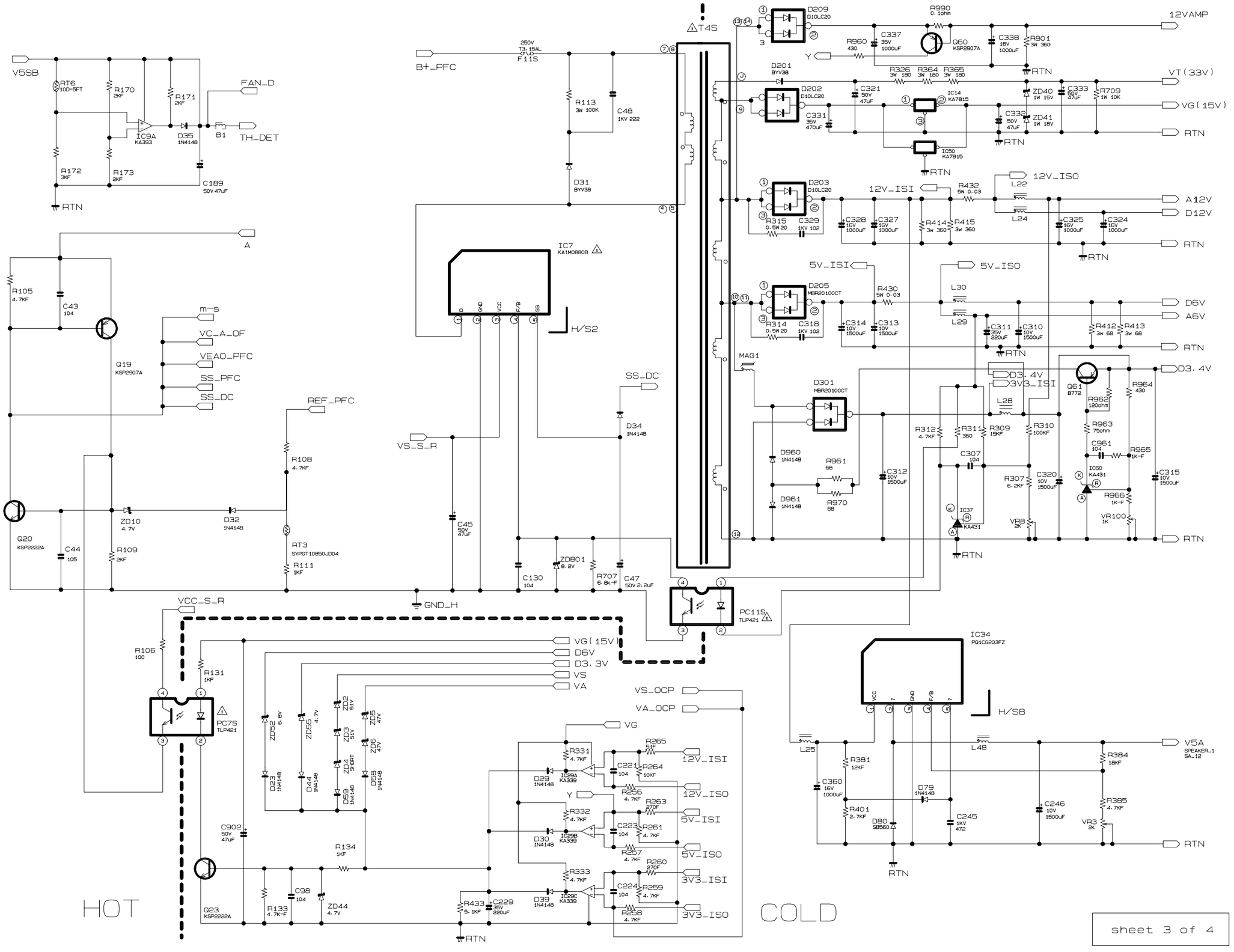
TITLE: B4K-50 ALEXANDER50" HD 42" HD 42" SD

SIZE A3 | DWG. NO. | SHEET 1 OF 4

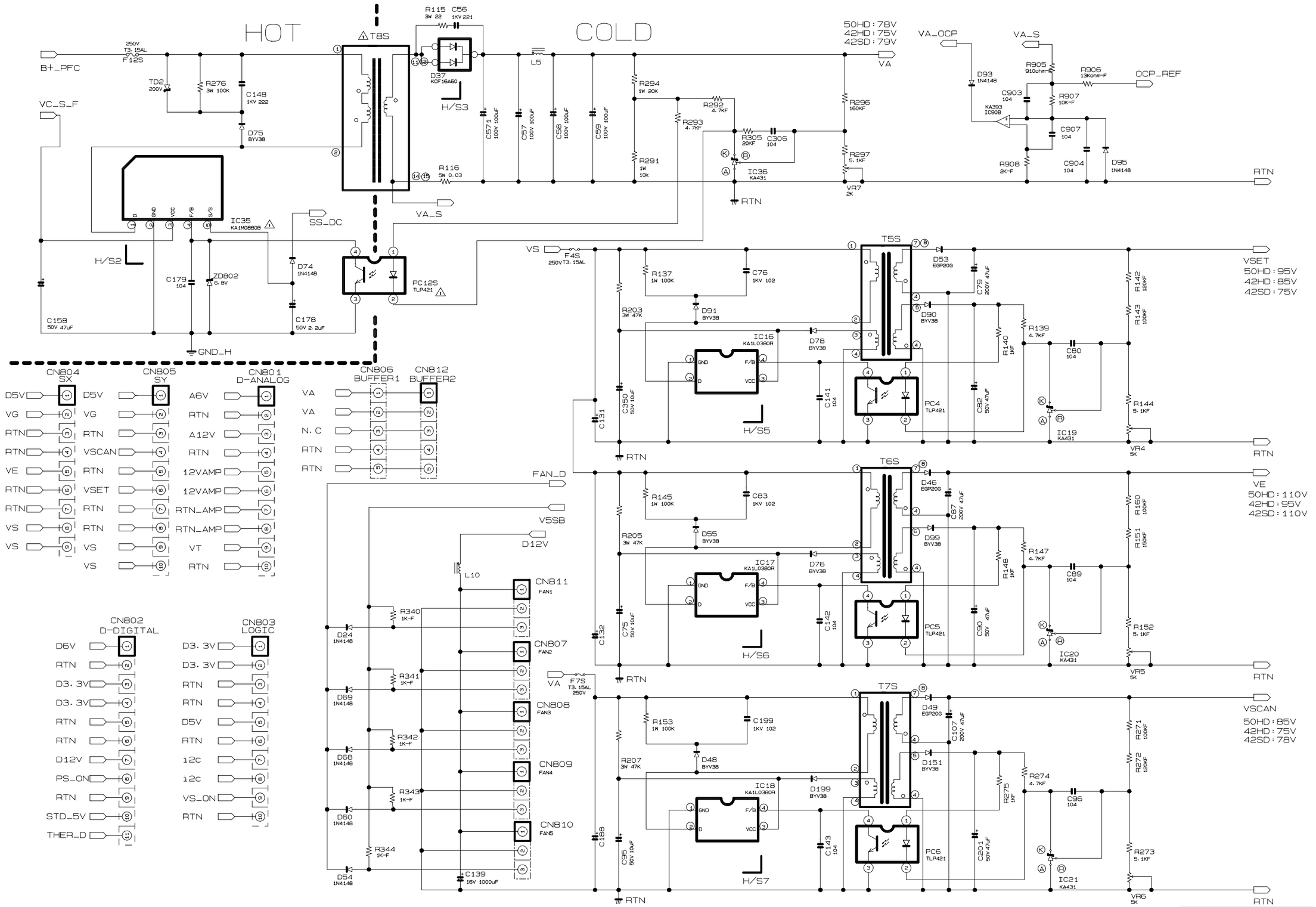


50HD:89V
42HD:91V
42SD:85V
VS
VS_S
RTN
VG(15V)
OCP_REF
VS_OCP
VS_S
RTN
STD_5V
VS_ON
HOT
COLD
LIVE
NEUTRAL
AC_V_S
S_S
SS_PFC
VC_S_F
VCC_S_R
REF_PFC
VC_S_R
VEAO_PFC
GND_H
B+_PFC
F20S
250V
T5.0AL
BD1
D15XB60
BD3
D15XB60
D9 UF5408
L1
D10
RHRP1560
Q1
47N60
Q2
47N60
Q3
KSP2222A
Q4
KSP2907A
Q6
2SK2372
Q8
2SK2372
Q78
KSP2907A
IC1
ML4824
PFC
IC30
IR2109
IC31
KA317
IC4B
KA358
IC5
KA431
IC90A
KA393
PC1S
TLP421
PC10S
TLP421
Q21
A1020
T1S
T2S
D41
KCF16A60
D42
KCF16A60
L41
H/S1
H/S2
H/S3

sheet 2 of 4


V5SB
RT6
10D-5FT
R170
2KF
R171
2KF
IC9A
KA393
D35
1N4148
B1
FAN_D
TH_DET
R172
3KF
R173
2KF
C189
50V 47uF
RTN
A
R105
4.7KF
C43
104
Q19
KSP2907A
m-s
VC_A_OF
VEAO_PFC
SS_PFC
SS_DC
REF_PFC
R108
4.7KF
RT3
SYPGT10850JD04
R111
1KF
Q20
KSP2222A
C44
105
R109
2KF
ZD10
4.7V
D32
1N4148
C45
50V
47uF
VS_S_R
GND_H
B+_PFC
250V
T3.15AL
F11S
R113
3W 100K
C48
1KV 222
D31
BYV38
T4S
IC7
KA1M0880B
H/S2
SS_DC
D34
1N4148
C130
104
ZD801
8.2V
R707
6.8K-F
C47
50V 2.2uF
PC11S
TLP421
VCC_S_R
R106
100
R131
1KF
PC7S
TLP421
VG(15V)
D6V
D3.3V
VS
VA
ZD52
6.8V
ZD55
4.7V
ZD2
51V
ZD3
51V
ZD4
SHORT
ZD5
47V
ZD6
47V
D23
1N4148
D44
1N4148
D59
1N4148
D58
1N4148
C902
50V
47uF
R134
1KF
Q23
KSP2222A
R133
4.7K-F
C98
104
ZD44
4.7V
VS_OCP
VA_OCP
VG
R331
4.7KF
IC29A
KA339
D29
1N4148
R265
51F
R264
10KF
C221
104
12V_ISI
12V_ISO
Y
R332
4.7KF
IC29B
KA339
D30
1N4148
R263
270F
R261
4.7KF
C223
104
R256
4.7KF
5V_ISI
5V_ISO
R257
4.7KF
R333
4.7KF
IC29C
KA339
D39
1N4148
R260
270F
R259
4.7KF
C224
104
R258
4.7KF
3V3_ISI
3V3_ISO
R433
5.1KF
C229
25V
220uF
RTN
HOT
COLD
D209
D10LC20
R960
430
C337
35V
1000uF
Q60
KSP2907A
R990
0.10hm
C338
16V
1000uF
R801
3W 360
12VAMP
D201
BYV38
D202
D10LC20
C321
50V
47uF
C331
35V
470uF
R326
3W 180
R364
3W 180
R365
3W 180
IC14
KA7815
IC50
KA7815
ZD40
1W 15V
ZD41
1W 18V
C333
50V
47uF
R709
1W 10K
VT(33V)
VG(15V)
C332
50V
47uF
D203
D10LC20
R315
0.5W 20
C329
1KV 102
C328
16V
1000uF
C327
16V
1000uF
12V_ISI
R432
5W 0.03
L22
L24
12V_ISO
R414
3W 360
R415
3W 360
C325
16V
1000uF
C324
16V
1000uF
A12V
D12V
D205
MBR20100CT
R314
0.5W 20
C318
1KV 102
C314
16V
1500uF
C313
16V
1500uF
R430
5W 0.03
L30
L29
C311
35V
220uF
C310
16V
1500uF
R412
3W 68
R413
3W 68
D6V
A6V
MAG1
D301
MBR20100CT
D960
1N4148
R961
68
R970
68
D961
1N4148
C312
16V
1500uF
D3.4V
3V3_ISI
L28
R312
4.7KF
R311
360
R309
15KF
R310
100KF
C307
104
R307
6.2KF
C320
10V
1500uF
VR8
2K
IC37
KA431
Q61
B772
R962
120ohm
R963
75ohm
C961
104
R965
1K-F
R966
1K-F
IC60
KA431
VR100
1K
R964
430
C315
10V
1500uF
IC34
PQ1CG203FZ
H/S8
L25
L48
V5A
SPEAKER_1
SA_12
R381
12KF
C360
16V
1000uF
D79
1N4148
R401
2.7KF
D80
S8560
C245
1KV
472
C246
10V
1500uF
R384
18KF
R385
4.7KF
VR3
2K

sheet 3 of 4


HOT
COLD
B+_PFC
250V T3.15AL F12S
TD2 200V
R276 3W 100K
C148 1KV 222
D75 BYV38
VC_S_F
T8S
R115 3W 22
C56 1KV 221
D37 KCF16A60
H/S3
L5
R116 5W 0.03
C571 100V 100uF
C57 100V 100uF
C58 100V 100uF
C59 100V 100uF
R294 1W 20K
R291 1W 10K
R292 4.7KF
R293 4.7KF
R305 20KF
C306 104
IC36 KA431
RTN
50HD : 78V
42HD : 75V
42SD : 79V
VA
R296 160KF
R297 5.1KF
VR7 2K
VA_OCP
VA_S
D93 1N4148
R905 910ohm
R906 13Kohm-F
OCP_REF
C903 104
KA393 IC90B
R907 10K-F
C907 104
R908 2K-F
C904 104
D95 1N4148
RTN
IC35 KA1M0880B
SS_DC
VA_S
H/S2
C179 104
ZD802 6.8V
D74 1N4148
C158 50V 47uF
C178 50V 2.2uF
PC12S TLP421
GND_H
VS
F4S 250V T3.15AL
R137 1W 100K
C76 1KV 102
D91 BYV38
R203 3W 47K
IC16 KA1L0380R
D78 BYV38
T5S
D53 EGP20G
C79 200V 47uF
D90 BYV38
R139 4.7KF
R140 1KF
C80 104
C350 50V 10uF
C141 104
PC4 TLP421
C82 50V 47uF
IC19 KA431
R142 120KF
R143 100KF
R144 5.1KF
VR4 5K
VSET
50HD : 95V
42HD : 85V
42SD : 75V
H/S5
RTN
C131
T6S
D46 EGP20G
C87 200V 47uF
D99 BYV38
R145 1W 100K
C83 1KV 102
D55 BYV38
R205 3W 47K
IC17 KA1L0380R
D76 BYV38
R147 4.7KF
R148 1KF
C89 104
C75 50V 10uF
C142 104
PC5 TLP421
C90 50V 47uF
IC20 KA431
R150 100KF
R151 150KF
R152 5.1KF
VR5 5K
VE
50HD : 110V
42HD : 95V
42SD : 110V
H/S6
C132
T7S
D49 EGP20G
C107 200V 47uF
D151 BYV38
R153 1W 100K
C199 1KV 102
D48 BYV38
R207 3W 47K
IC18 KA1L0380R
D199 BYV38
R274 4.7KF
R275 1KF
C96 104
C95 50V 10uF
C143 104
PC6 TLP421
C201 50V 47uF
IC21 KA431
R271 100KF
R272 120KF
R273 5.1KF
VR6 5K
VSCAN
50HD : 85V
42HD : 75V
42SD : 78V
H/S7
C156
CN804 SX
D5V
VG
RTN
RTN
VE
RTN
RTN
VS
VS
CN805 SY
D5V
VG
RTN
VSCAN
RTN
VSET
RTN
VS
VS
CN801 D-ANALOG
A6V
RTN
A12V
RTN
12VAMP
12VAMP
RTN_AMP
RTN_AMP
VT
RTN
CN806 BUFFER1
VA
VA
N.C
RTN
RTN
CN812 BUFFER2
CN802 D-DIGITAL
D6V
RTN
D3.3V
D3.3V
RTN
RTN
D12V
PS_ON
RTN
STD_5V
THER_D
CN803 LOGIC
D3.3V
D3.3V
RTN
RTN
D5V
RTN
i2c
i2c
VS_ON
RTN
FAN_D
V5SB
D12V
L10
CN811 FAN1
CN807 FAN2
CN808 FAN3
CN809 FAN4
CN810 FAN5
R340 1K-F
R341 1K-F
R342 1K-F
R343 1K-F
R344 1K-F
D24 1N4148
D69 1N4148
D68 1N4148
D60 1N4148
D54 1N4148
C139 16V 1000uF
VA
F7S T3.15AL 250V
RTN

sheet 4 of 4